AEROSPACE RECOMMENDED PRACTICE

ARP712™ REV. C

Issued 1965-05
Reaffirmed 2011-05
Revised 2017-09

Superseding ARP712B

(R) Galley Lighting

RATIONALE

This revision adds references to the reference section, addresses LED and Fluorescent sources and expands on electrical power quality, EMI and environmental conditions.

1. SCOPE

This SAE Aerospace Recommended Practice (ARP) provides minimum standards and environmental design requirement recommendations for lighting and control in galley areas. It also addresses electrical shock hazard in galley areas. The use of "shall" in this document expresses provisions that are binding. Non-mandatory provisions use the term "should."

1.1 Purpose

The purpose of this recommended practice is to provide minimum standards for the illumination of galleys (buffets) and for the location of lighting controls within the galley area of passenger transport aircraft.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AIR512 Aircraft Cabin Illumination

AS4914 Aircraft Fluorescent Lighting Ballast/Fixture Safety Standard

ARP5873 LED Passenger Reading Light Assembly

ARP6253 LEDs and Aircraft Applications

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

SAE values your input. To provide feedback on this Technical Report, please visit
http://standards.sae.org/ARP712C

2.1.2 RTCA Publications

Available from RTCA, Inc., 1150 18th Street, NW, Suite 910, Washington, DC 20036, Tel: 202-833-9339, www.rtca.org.

RTCA. DO-160 Environmental Conditions and Test Procedures for Airborne Equipment

2.1.3 U. S. Government Publications

Copies of these documents are available online at http://quicksearch.dla.mil.

MIL-STD-1472 Human Engineering

2.2 Definition

Galley lighting is the lighting that is provided within the galley area. Galley lighting should provide sufficient illumination for the preparation and serving of food, the reading of instruction manuals, and the identification and operation of the various controls and equipment located in the galley.

3. RECOMMENDATIONS

3.1 Lighting Levels

3.1.1 Average of 5.0 ft-c (53.8 lx) of illuminance should be provided on the floor of the galley area.

3.1.2 Average of 15.0 to 20.0 ft-c (161.4 to 215.2 lx) of illuminance should be provided on working surfaces such as counter tops.

3.1.3 Average of 1.0 ft-c (10.76 lx) of illuminance should be provided on the floor of deep compartments, such as ovens, and storage bins, which must be inspected.

3.1.4 Average of 5.0 ft-c (53.8 lx) of illuminance should be provided on all controls, operating instructions, and placards.

3.1.5 The galley area lighting should be provided with dimming controls, either continuous or stepped dimming, to reduce the illumination while operating under dark conditions.

3.1.6 The color of the galley light sources should be white.

3.2 General

3.2.1 Lighting Location

Light sources should be carefully located to minimize the casting of shadows on work areas by personnel occupying normal work positions. Light from the galley area should be confined to that area by directional light sources or by curtains around the galley area. Light sources should be located and trim materials selected to minimize glare in the eyes of an attendant working in the galley. To prevent glare, light sources should be located so the observer does not view the luminaire emitting surface directly.

3.2.2 Controls

All controls within the galley area should be so located or protected as to prevent injury to an attendant in the event of a violent airplane movement.

3.2.2.1 All lighting controls within the galley area should be placed on a single control panel and located within convenient reach of the attendant. Individual controls shall be arranged to conform generally to the physical location of the light sources. Light controls for continuous dimming shall rotate clockwise to increase intensity and shall provide an "off" position at the extreme of counter-clockwise rotation. For step dimming or on/off control, the toggle controls shall be full bright/on in the up position.